



## International Civil Aviation Organization CAR/SAM Regional Planning and Implementation Group (GREPECAS)

#### **WORKING PAPER**

GREPECAS/21 — WP/04 03/10/23

# Twenty-first Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/21)

Santo Domingo, Dominican Republic, 15 to 17 November 2023

Agenda Item 2: Third GREPECAS-RASG-PA Joint Meeting (asynchronous)

2.3 Air navigation topics of interest to RASG-PA and operational safety topics of interest to GREPECAS

#### TOPICS OF INTEREST FOR GREPECAS AND RASG-PA

(Presented by the Secretariat)

## **EXECUTIVE SUMMARY**

The meeting must identify the topics of interest for both Groups RASG PA and GREPECAS considering that operational safety risks arise during the delivery of air navigation services or the conduct of an activity (e.g., operation of an aircraft, airports or of air traffic control). Operational interactions between people and technology, as well as the operational context in which aviation activities are carried out, are taken into consideration to identify performance limitations and hazards.

Action:	Suggested actions are presented in Section 4.				
Strategic	Safety				
Objectives:	Air Navigation Capacity and Efficiency				
	Economic Development of Air Transport				
	Environmental Protection				
References:	GREPECAS 20 Meeting Final Report				
	RASG-PA 12 Meeting Final Report				
	GREPECAS Procedures Manual				
	RASG-PA Procedures Manual				
	• ICAO Doc. 10161, Global Aviation Safety Roadmap First Ed. – 2023 -				
	2025				

## 1. Introduction

1.1 Considering that GREPECAS and RASG-PA are complementary in the continuous dynamic growth of improving operational safety in air transport, this implies that the decisions between the two Secretariats of both GREPECAS and RASG-PA are coordinated constantly for new safety topics for study and analysis for both groups improving all safety issues that are under analysis, especially on different Air Navigation areas.

- 1.2 States ensure the integration of new considerations in the planning, design, and implementation of new technologies, systems, and processes as part of a safety management approach, and include strategies which promote safe, consistent, efficient, and effective operational performance of the individual and across teams of individuals to address safety priorities. In that sense, the 'Significant Seven' covers work that has been going on for both groups RASG-PA and GREPECAS: loss of control, runway overrun or excursion, controlled flight into terrain, runway incursion and ground collision, ground handling and airborne and post-crash fire for example. In addition, it is recognized that there are also 12 most common causes of error within aviation maintenance: Lack of Staff communication, complacency, lack of knowledge for decision making, distraction, lack of teamwork, fatigue, lack of resources, pressure, lack of assertiveness, high level of stress, lack of situational awareness and lack of standards setting. Here are the 12 Key Elements of a Safety Management System as a reference:
  - 1. Safety Policy and Objectives.
  - 2. Safety Risk Management.
  - 3. Safety Assurance.
  - 4. Safety Promotion.
  - 5. Safety Reporting and Investigation.
  - 6. Safety Planning.
  - 7. Safety Performance Monitoring.
  - 8. Safety Management Documentation.
  - 9. Safety Communication
  - 10. Safety Training and Education
  - 11. Safety Management Review
  - 12. Safety Management System Promotion

## 2. Discussion

- 2.1 In 2023, the Aviation Community can anticipate the widespread use of advanced technologies such as artificial intelligence (AI), Internet of Things (IoT), and big data analytics. These technologies will streamline various processes like flight operations. The following topics are important new topics for discussion for both Regional Groups to determine the possible creation of new working groups or possible workshops:
  - Development of Workshops on Human factors and Human Performance as primary cause of incidents and accidents,
  - Initiate studies and discussions on Automatic Flight Control Systems (AFCS) play a critical role in
    enhancing the safety of aircraft. This technology uses computer programs and sensors to monitor
    the performance of the aircraft and adjust controls as needed, reducing the potential for human error
    during flights.
  - Space activity increment and requirements, Operating air balloons for passengers/cargo and the increment of helicopter operations
  - Bird/wildlife hazard coordinate and integrate actions to reduce the number of aviation accidents and incidents resulting from wildlife collisions with aircraft.

#### 3. Conclusion

- 3.1 This WP considers that pilots and air traffic controllers are more targeted in identifying patterns of associations between unsafe acts and their causal conditions. The high-experience group also had a greater tendency to classify causal factors as originating from higher-level supervisory or organizational conditions.
- 3.2 The integration of human factors and human performance classification with open-system concepts of safety culture and safety practices will also provide safety practitioners with the innovative ability to select more effective intervention and safety management approaches.
- 3.3 Based on the expected GREPECAS and RASG-PA discussions on the possible new common interest topics, as well as the progress achieved through coordination and collaboration, the Meeting is invited to consider approving the following Decision:

DRAFT DECISION NEW TOPICS OF C GREPECAS/21/XX RASG-PA			COMM	ON INTI	EREST FOR GREPECAS AND	
What:					Expected impact:	
<ul> <li>That, GREPECAS and RASG-PA fully collaborate on these topics of interest:</li> <li>a) that the Secretariats of GREPECAS and RASG provide support on issues related to both regional gro to avoid duplication of efforts;</li> <li>b) fostering fora or spaces for conversation on topic which air navigation and safety are transversal interacting; and</li> <li>c) that the Secretariats of both regional groups pror joint work in the States on issues that interact navigation with safety, to optimize States resources.</li> </ul>			ASG-PA groups, opics in resal and promote eract air	<ul> <li>□ Political / Global</li> <li>☑ Inter-regional</li> <li>□ Economic</li> <li>□ Environmental</li> <li>☑ Operational/Technical</li> </ul>		
<b>Why:</b> To promote the scope of improvements in the analyses and work between GREPECAS and RASG-						
PA						
When:	GREPECAS/22		Status:	⊠ Valid	/ □ Superseded / □ Completed	
Who:	⊠ States ⊠ IC	States   ☐ ICAO ☐ Other: GREPECAS and RASG-PA Secretariats				

## 4. Suggested actions

- 4.1 The Meeting is invited to:
  - a) note the information provided in this Working Paper;
  - b) approve the proposed Decision in Section 3.3; and
  - c) suggest any additional action that is considered necessary.